

Amendments to the Claims:

This Listing of Claims will replace all prior versions and Listings of Claims in the application.

Listing of Claims:

1-19. (Cancelled)

20. (Currently Amended) A method for retrofitting ~~diesel engines to reduce emissions from a~~ model year 1991-2003 on-highway diesel ~~engine~~ engine rated to produce between 150 and 600 horsepower, the diesel engine drawing intake air through an air intake structure including an air filter for filtering the intake air, the method comprising:

(a) installing a blow-by filter for filtering blow-by gas generated by the diesel engine to reduce blow-by gas emissions, the blow-by filter being installed in gas-flow communication with the engine blow-by gases from the a blow-by vent structure of the diesel engine and in further gas-flow communication with the engine air intake structure; and

(b) installing a catalytic converter for treating exhaust gas generated by the diesel engine to reduce exhaust gas emissions, the catalytic converter being installed in gas-flow communication with the exhaust gases from the engine an exhaust port structure of the diesel engine;

~~where the combined reduction of the blow-by gas emissions and the exhaust gas emissions satisfies the minimum reductions~~ wherein the blow-by filter and the catalytic converter provide at least a 25 percent reduction in total engine particulate matter emissions in emissions required by government regulations governing retrofits of model year 1991-2003 on highway diesel engines rated to produce from 150-600 horsepower.

21. (Previously Presented) A method according to claim 20 wherein:

(a) said step of installing a blow-by filter includes installing a blow-by filter including:

(i) a first end cap and a second end cap; the first end cap including a central gas stream inlet aperture;

- (ii) a second stage filter comprising a tubular construction of pleated media extending between the first end cap and the second end cap; the tubular construction of media defining an open tubular interior; the central gas stream inlet aperture of the first end cap being in flow communication with the open tubular interior;
- (iii) a first stage coalescer filter oriented in extension across the gas stream inlet aperture;
- (iv) the pleated media of the second stage filter, the first end cap, the second end cap, and the first stage coalescer filter being unitary in construction;
- (v) the first stage coalescer filter including a nonwoven fibrous bundle having a first upstream surface area; the second stage filter including pleated media having a second upstream surface area; and
- (vi) the first upstream surface area being no more than 10% of the second upstream surface area.

22. (Cancelled)

23. (Currently Amended) A method for certifying compliance with governmental regulations for an emissions reduction retrofit of model year 1991-2003 on-highway diesel engines rated to produce from 150-600 horsepower, the method comprising:

- (i) measuring the untreated crankcase ~~by blow~~ blow-by emissions of a model year 1991-2003 on-highway diesel engine rated to produce from 150-600 horsepower, the diesel engine drawing intake air through an air intake structure including an air filter for filtering the intake air;
- (ii) measuring the untreated exhaust emissions of the diesel engine;
- (iii) installing a blow-by filter in gas-flow communication with the engine blow-by gases from the engine blow-by vent structure and in further gas-flow communication with the engine air intake structure;
- (iv) installing a catalytic converter in gas-flow communication with the engine exhaust gases from the exhaust port structure;
- (v) measuring the treated exhaust gas emissions of the diesel engine; and

- (vi) determining that the treated exhaust gas particulate matter emissions are reduced relative to the combination of the untreated blow-by gas particulate matter emissions and the untreated exhaust gas particulate matter emissions by an amount that satisfies the minimum reduction at least 25 percent in emissions required by government regulations for retrofits of model year 1991-2003 on-highway diesel engines rated to produce 150-600 horsepower.

24. (Cancelled)

25. (New) The method of claim 20, wherein the blow-by filter has a mass efficiency that exceeds 80 percent.

26. (New) The method of claim 20, wherein the blow-by gas is directed to the air intake structure at a location downstream from the air filter.

27. (New) A method for retrofitting a diesel engine, the diesel engine drawing intake air through an air intake structure including an air filter for filtering the intake air, the method comprising:

- (a) installing a blow-by filter for filtering blow-by gas generated by the diesel engine to reduce blow-by gas emissions, the blow-by filter being installed in gas-flow communication with a blow-by vent structure of the diesel engine and in further gas-flow communication with the engine air intake structure; and
- (b) installing an exhaust treatment device for treating exhaust gas generated by the diesel engine to reduce exhaust gas emissions, the exhaust treatment device being installed in gas-flow communication with an engine exhaust port structure of the diesel engine, the exhaust treatment device including a muffler, the exhaust treatment device also including a substrate positioned within the muffler for reducing the exhaust gas emissions, the substrate being catalyzed with a diesel oxidation catalyst to promote the oxidation of hydrocarbons, wherein the blow-by filter and the exhaust treatment device are configured to provide at least a 25 percent reduction in total engine particulate matter emissions when the blow-by filter and the exhaust treatment device are used to retrofit a

model year 1991-2003 on-highway diesel engine rated to produce from 150-600 horsepower.

28. (New) The method of claim 27, wherein the blow-by filter and the exhaust treatment device are installed on a model year 1991-2003 on-highway diesel engine rated to produce from 150-600 horsepower so as to retrofit the diesel engine in a manner that satisfies the minimum reductions in emissions required by government regulations governing retrofits of model year 1991-2003 on-highway diesel engines rated to produce from 150-600 horsepower

29. (New) The method of claim 27, wherein the blow-by filter has a mass efficiency that exceeds 80 percent.

30. (New) The method of claim 27, wherein the catalyzed substrate comprises a catalytic converter.

31. (New) The method of claim 27, wherein the blow-by filter has a mass efficiency that exceeds 90 percent.

32. (New) The method of claim 27, wherein the blow-by gas is directed to the air intake system at a location downstream of the air filter.

33. (New) The method of claim 27, wherein the substrate includes a ceramic substrate having a honeycomb like configuration of longitudinal channels.

34. (New) The method of claim 27, further comprising selling the blow-by filter and the exhaust treatment device as part of a retrofit kit.